

WHAT IS CLAIMED IS:

1. A load-lock system comprising:

a load-lock chamber arranged between a storage port which stores a substrate and a process chamber which processes the substrate in a process space maintained at a pressure lower than a pressure in the outside; and

a dehumidifying unit which forms a dehumidified environment in said load-lock chamber.

2. A system according to claim 1, wherein said dehumidifying unit has a controller which controls a humidity in said load-lock chamber so as to prevent moisture in said load-lock chamber from condensing when a temperature in said load-lock chamber drops.

3. A system according to claim 1, wherein said dehumidifying unit has a pipe which communicates with said load-lock chamber, a cooler and a heater placed in the pipe, and a controller separately controls the cooler and heater.

4. A system according to claim 3, wherein said dehumidifying unit has a filter for removing moisture, the filter being arranged between the cooler and the heater in the pipe.

5. A system according to claim 1, further comprising another chamber between said storage port and said load-lock chamber, wherein

said dehumidifying unit dehumidifies said another

chamber.

6. A system according to claim 5, wherein said dehumidifying unit has a controller which controls a humidity in said another chamber so as to prevent
5 moisture in said load-lock chamber from condensing when a temperature in said load-lock chamber drops.

7. A system according to claim 6, wherein
the controller calculates a humidity in said load-lock chamber and the humidity in said another
10 chamber, and

said dehumidifying unit controls the humidity in said another chamber so as to prevent moisture in gas flowing from said another chamber into said load-lock chamber from condensing when the temperature in said
15 load-lock chamber drops, on the basis of a calculation result by the controller.

8. A system according to claim 5, wherein
said dehumidifying unit has a pipe which communicates with said another chamber, a cooler and a
20 heater placed in the pipe, and a controller separately controls the cooler and heater.

9. A system according to claim 5, further comprising a static eliminator which eliminates static electricity in said another chamber.

25 10. A system according to claim 5, wherein said another chamber includes a transport portion which transports the substrate between said storage port and

said load-lock chamber.

11. An exposure processing system comprising:

a storage port which stores a substrate;

an exposure processing unit which exposes the
5 substrate in a process space maintained at a pressure
lower than a pressure in the outside;

a load-lock chamber arranged between said storage
port and said exposure processing unit; and

a dehumidifying unit which forms a dehumidified
10 environment in said load-lock chamber.

12. A system according to claim 11, wherein said
dehumidifying unit supplies dehumidified gas into said
load-lock chamber.

13. A system according to claim 11, further
15 comprising a mini-environment between said storage port
and said load-lock chamber, wherein

said dehumidifying unit supplies dehumidified gas
into said mini-environment.

14. A device manufacturing method comprising:

20 an exposure step of exposing a substrate using an
exposure processing system as defined in claim 11; and

a development step of developing the exposed
substrate.